trochanter, and the unguiculate claws have already been referred to. As to the latter, which are short, it is not the end phalanx but the first which is retracted; thus *Chalicotheriu'ni* differs markedly from both Carnivorous and Edentate types; for in the former it is the last phalanx which is retracted, while in the Edentates fche same phalanx is flexed downwards. The limbs of *ChaUcofherium* are nearly of the same size, and the animal seems to have been stout and quadrupedal.[1]

MacrotkeriuTn, like the last genus, seems to have been common to both New and Old Worlds. It is to be distinguished by a number of characters. It is supposed to have been " semi-arboreal and fossorial"; the fore-limbs are much longer than the hind, the relative proportions of the radius and tibia being 70 to 29. The ulna was distinct from the radius, whereas in *Chalicotfaeriu'm,* the two are coalesced, or nearly so. Young specimens appear to possess a full set of incisors; whether this is the case or not with *Ghalicotheri'um* is not known.[2]

is sometimes placed in the group.

SUB-ORDEK 4. TYPOTHERIA.

It is a little difficult to be confident that the Typotheria are rightly referred to the Ungulata, since they contradict two important Ungulate rules. They have clavicles, which are elsewhere missing, and the thumb looks as if it were opposable.[3] An Ungulate is essentially a running animal, and has no need of a grasping finger. Still Typotheria are placed by most within the Ungulate series, though their undoubted likenesses to other groups, especially to the Bodentia, are admitted, and indeed emphasised. Cope places them definitely with the Toxodonts.

The Typotheria are an extinct group of smallish beasts, confined, like the Toxodontia, to South America, a region which during the Tertiary period, and into the Pleistocene, abounded with strange and varied types of Ungulate animals.

The earlier forms of Typotheria may be exemplified by some

[1] **See Osborn, *American, JVa&uralzst,* February 1893, p. 118.**
[2] **It is not absolutely clear whether both or only one genus ranged into**

America. Different opinions have been expressed.

*** It must be remembered, however, that there is a suggestion of a prehensile character in the hand of *PAenacodus* (see p. 203).**